



This document includes Section 11.0 – UTB 41 Class: Vessels with Compression Ignition Engines and Less than 65 Feet in Length, Small Boats and Service Vessels, Coastal Mine Hunters, and Buoy Tenders, of the Draft EPA Report “Surface Vessel Bilgewater/Oil Water Separator Characterization Analysis Report” published in August 2003. The reference number is: EPA-842-D-06-017

DRAFT
Characterization Analysis Report
Surface Vessel Bilgewater/Oil Water
Separator

Section 11.0 – UTB 41 Class: Vessels with Compression Ignition Engines and Less than 65 Feet in Length, Small Boats and Service Vessels

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11.0 UTB 41 CLASS

The Utility Boat Class (UTB 41) is the representative class selected for the group of CI small boats and service craft that are less than 65 feet in length. General vessel characteristics under full load condition (the naval architecture terminology used to describe general vessel characteristics are further defined in the “Naval Architecture Guide for Modeling Purposes” (Navy, 2001a). General vessel characteristics under full load condition for the UTB 41 Class are provided below.

General Vessel Characteristics (Navy, 2001a):

Draft (ft):	4
Length at waterline (ft):	39
Beam at waterline (ft):	12
Displacement (tons):	14

Vessels in this group are equipped with up to four inboard CI engines, which range from approximately 200 hp for the smaller vessels to 1200 hp for the larger vessels. This group is comprised of diverse vessel classes including patrol craft, landing craft, rigid inflatable boats, buoy tenders, harbor tugs, and utility boats. As discussed in the bilgewater vessel grouping document, the UTB 41 was selected as the representative vessel class because it has two CI engines and its length is close to the average of the vessel group (35 ft). For discussion of representative class selection, see the Vessel Grouping and Representative Vessel Class Selection for Surface Vessel Bilgewater/Oil-Water Separator Discharge (Navy and EPA, 2001a). Vessels in this group receive fluids in the bilge from condensation that forms on the interior hull, and from leaking propeller shafts, pump packing glands, piping, valves, and flanges. This fluid may be contaminated with oily substances used to power and lubricate the propulsion and auxiliary engines.

The following marine pollution control devices (MPCDs) passed the screening process, described in the Marine Pollution Control Device Screen Criteria Guidance (Navy and EPA, 2000b), and were determined to be viable options in the feasibility analysis for the vessel group (see the Feasibility Impact Analysis Report Surface Vessel Bilgewater, hereafter referred to as the Bilgewater FIAR) (Navy and EPA, 2002b)

- Filter Media (Navy and EPA, 2001f)
- *In situ* biological treatment (Navy and EPA, 2001d)
- Collection, Holding, and Transfer (CHT) (Navy and EPA, 2001c)

As determined in the Bilgewater FIAR, the CHT option is a feasible MPCD for this vessel group and is presently being practiced by vessels in this group. Application of this MPCD option involves shore-side treatment of collected bilgewater at a properly permitted facility, and as a result there is no discharge to the receiving waters. Bilgewater from boats in this vessel group is expected to contain a range of constituents similar to that found in other compression ignition powered vessels (see Section 7.0: LSD 41). For the UTB Vessel group however, the need for further characterization was considered to be superfluous.